

Features, Stainless Steel NPTF Pipe Fittings

NPTF pipe fittings described in this section include fittings with NPTF male or female pipe ends. Pipe thread connections are used in a wide variety of applications and provide reliable metal to metal sealing. Because of the tapered NPTF thread design, pipe thread connections are not recommended for applications that require repeated re-assembly or precise orientation of the fitting after tightening.

For connections between male or female NPTF pipe ends and 37 degree tube ends, refer to the Tube Fittings Section.

For connections between male or female NPTF pipe ends and SAE O-ring Ports, refer to the Adjustable and O-ring Fittings Section.

Performance

Where applicable, fittings are designed and qualified to the requirements of SAE J514.

Construction

Stainless steel fittings are machined from 316 stainless steel barstock or forgings. Fittings are passivated following machining.

Threads

NPTF Threads: Male and female pipe threads conform to the Dryseal American Standard Taper Pipe Thread (NPTF) Series which will provide pressure tight joints without the use of a lubricant or sealer. Use of these fittings with non-dryseal NPT pipe or hose ends is not recommended for high-pressure applications.

Note: Where not functionally objectionable, use of a compatible lubricant/sealant is recommended for either NPT or NPTF threads to minimize the possibility of galling in assembly.

Assembly Information

For assembly instructions, refer to the Technical Data Section for the appropriate fitting end. . Also, refer to the Technical Data Section for recommendations regarding tubing pressure ratings and hose/tube routing information. Please note the following:

In the design and fabrication of tubing or hose runs for any hydraulic system, precautions should be taken to allow for sufficient adjustment of the hose or tubing so that proper alignment can be attained at the fitting connections. Improper fit-up or misalignment should be

corrected before final connections are made. Location of fitting connections should be planned to maximize accessibility. Whenever possible, use a torque wrench to tighten connections to the recommended torque.

Ordering Information

Size of fittings are indicated by dash number relating to sixteenths of an inch for the nominal O.D. of the pipe size used. Example: 1/2 inch pipe = 8/16 or (-8) size. For stainless steel fittings, an SS prefix indicates 316SS material.

Order standard fittings from appropriate chart indicating required dash numbers. For example, SS5502-8-8 is 1/2" male pipe thread to 1/2" female pipe thread. Jump size SS5502-8-6 is 1/2" male pipe thread to 3/8" female pipe thread. Pictorial views for each fitting style indicate the correct numbering sequence for fitting ends.

If information is needed for jump sizes not shown, please contact customer service for engineering assistance.

Table SPF1. Pressure Ratings for Fittings With NPTF Pipe Threads				
Nominal Pipe Size		Thread Size	Working Pressures	
Nom SAE Dash Size	Nom Inch Pipe O.D.	Dryseal Pipe Thread (NPTF ¹) Male and Female	Fittings With NPTF Pipe Threads	
			MPa	psi
-2	1/8	1/8-27	34.5	5,000
-4	1/4	1/4-18	27.5	4,000
-6	3/8	3/8-18	21	3,000
-8	1/2	1/2-14	21	3,000
-12	3/4	3/4-14	17	2,500
-16	1	1-11-1/2	14	2,000
-20	1 1/4	1-1/4-11-1/2	8	1,150
-24	1 1/2	1-1/2-11-1/2	7	1,000
-32	2	2-11-1/2	7	1,000

1) Dryseal American Standard Taper Pipe Thread

